

REMARKS

In the Office Action, claims 1-18 are noted as pending in the application, claims 1-9, 11, 12, 15, 16 and 18 stand rejected, claims 10, 13, 14 and 17 are objected to and no claims are allowed. No claims have been withdrawn from consideration.

Specification

Amendments are made to the specification to correct grammatical errors. No new matter is added.

Drawings

The Examiner indicates that new corrected drawings are required in this application because the figures are hand-drawn. Formal drawings were filed September 7, 2004, and the formal drawings were printed in the published application.

Claims

Claims 10, 13, 14, and 17 were objected to and are now rewritten to place them in independent form or to be dependent from a rewritten claim that was objected to. These claims should now be allowable. Claim 10 has been amended not only to incorporate preceding claims from which claim 10 depended, but the order of the clauses from the dependent claims was changed to make the claim more easily readable than without the reordering.

Claims 1-6, 8, 9, 11, 12, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Brennan et al., 6,560,815. According to the Office Action, Figure 1 of Brennan et al. shows a double-chambered pale (10) with a wringer (15) located on one side of the pale. Further according to the Office Action, the wringer (15) comprises a support element (generally elements 23, 25), having a wringer surface (generally element 19, 35, 17, 21) which comprises a first portion consisting of wall (19) extending to drain holes (35) or optionally extending to wall (17). The wringer surface having a second portion which can be surface (17) extending to the curved portion (21) or optionally consisting of only curve portion (21). With respect to claim 18, the wringer

(15) comprises a support channel which mates with the rim surface of the bucket, a support wall (generally element 25), a first surface (19) and a second surface (generally 31, 35, 17, and 21). These rejections are respectfully traversed.

Also according to the Office Action, claims 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 603,547 (Wolff). The Wolff patent allegedly discloses a wringer comprising an upper support wall (10) a second depending support walls (14) a first depending support wall (16), a wringer surface (17) and a second portion (18, 19, 20).

Claim 7 is rejected under 35 USC 103(a) as being unpatentable over Brennan et al. in view of Trindl, 2,290,217. According to the Office Action, the Brennan et al. wringer (15) does not include perforations on all of the surfaces (17, 19). According to the Office Action, the Trindl et al. patent discloses a wringer which includes perforations on all of the surfaces, and it would have been obvious to one skilled in the art to provide all of the wringer surfaces in the Brennan et al. patent in order to drain the water from the cleaning head more quickly, as taught in Trindl et al.

These rejections are respectfully traversed.

Applicants's Specification

Applicants disclose a wringer having a support element in the form of an inverted support channel 50 (FIGS. 2-6). The wringer also includes a wringer surface 52, which may take a number of configurations. In one example, the wringer surface 52 includes a first portion in the form of a perforated base plate 54 and a second portion in the form of a perforated channel plate 56. In the example, the base plate 54 of the wringer surface joins the support element 50 forming an angle 58 of approximately 135 degrees, so that the base plate 54 depends from and is supported by a substantially vertical wall 60 at a line 62 (FIG. 3). The line 62 is at a first level below the top or upper surface 64 of the support element 50. The base plate 54 extends downwardly in a first direction from the vertical wall 60 to a lower portion of the base plate, designated generally by the dashed lines at 66, which lower portion of the base plate is below the support element

50. Preferably, the lower portion 66 of the base plate 54 is substantially below the support element 50.

The lower portion 66 of the base plate 54 transitions to the perforated channel 56. The perforated channel is preferably integral with the base plate 54 and curves so as to follow an arc of greater than about 90 degrees and preferably approximately 180 degrees to a free edge or end 68. The perforated channel 56 extends away from the base plate 54 and curves upward and back generally in the direction of the support element 50, but the free edge 68 does not necessarily point precisely at the support element 50. The perforated channel 56 is preferably formed to accommodate wringing of a round mop, such as that shown in FIG. 5. The free edge 68 is also preferably significantly below the support element 50. As can be seen in the side view of FIG. 2, the wringer surface is asymmetrical about a vertical plane extending into the paper of FIG. 2. [See, Applicants's Specification, paragraph 23, starting at page 5, line 19, and paragraph 24 and starting at page 6, line 1, and paragraph 26, starting at page 6, line 19.)

The Cited References

Brennan, U.S. Patent No. 6, 560,815, is cited as allegedly anticipating claims 1-6, 8, 9, 11, 12 and 18. Brennan shows a mop squeezing device 15 set in a bucket 1 directly over a compartment 7. It includes a mop surface engaging face 17 and an abutment means 19, and the device has an upper lip 21 resting on part of the bucket and a bottom edge 23 of a further lip 25 resting on another part of the bucket. The mop surface engaging face 17 is generally planar and is inclined at an angle relative to the vertical. Draining openings 35 are in the bottom of the device 15. The upper lip 21 terminates in an edge surface directed vertically downward and in contact with a portion of the bucket. Brennan has no free edge of a wringer surface extending in a direction of a support element in the wringer, and there is no curvature in a wringer surface from a support element in a direction of a support element of the wringer.

Wolff, U.S. Pat No. 603,547, shows a mop wringer having a back section 10, cleats 14, a perforated back section 16, a perforated bottom 17 and a perforated front

18. An outwardly-extending flange 19 is on the upper edge of the front 18. The cleats 14 receive the upper portion of a bucket. The cleats have surfaces that are closer to the back section 10 than is the flange 19 or the perforated front 18.

Trindl, U.S. Patent No. 2,290, 217, shows a mop squeezer formed from resilient perforated sheet metal into a trough 11 supported on the rim of a bucket 13 by four hooks, 14, 15, 16 and 17. The trough 11 is formed from a single piece of sheet metal bent to form a flat bottom 18, two sloping sides 19 and 20 and two tubular rim portions 21 and 22 along the upper edges of the sides 19 and 20.

The Claims

Consider now the claims in the application. Claim 1 is an independent apparatus claim reciting in part:

"wherein the wringer surface includes a first portion, wherein the first portion extends away from the support side at least partly in an opposite direction opposite from the support element and at a first angle in a first direction from a vertical line from the support element to a lower wringer surface below the support element, wherein the wringer surface includes a second portion extending away from the first portion in a second direction different from the first direction and wherein the wringer surface terminates at a free end below the support element extending in at least partly a direction toward the support side of the wringer."

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or the "the wringer surface terminates at a free end below the support element extending in at least partly a direction toward the support side of the wringer". Brennan's wringer surfaces extend away from the wringer support element, and have no free ends directed toward a wringer support element. Clearly claim 1 is patentable over the prior art.

Claims 2-9, 11 and 12 are dependent directly or indirectly from independent claim 1 and are asserted as being patentable for the same reasons as discussed above with respect to claim 1, for the additional combinations in the dependent claims as well as for the additional limitations recited in the dependent in claims. Note claim 5 reciting in part "wherein the second portion of the wringer surface is curved through an arc greater than 90 degrees." Note also claim 8 reciting in part "wherein the first portion of the wringer surface extends at the first angle of approximately 45 degrees." Note also claim 9 reciting in part "wherein the support element includes a first vertical wall and wherein the first portion of the wringer surface and the first vertical wall join to form an angle of approximately 135 degrees."

Claim 15 is an independent apparatus claim reciting in part:

"a support having an upper support wall and first and second depending support walls extending away from the upper support wall and wherein the second depending support wall terminates at a free surface;

"a wringer surface joined to the first depending support wall along a line at least partly closer to the upper support wall than the free surface. . . ."

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or the "a wringer surface joined to the first depending support wall along a line at least partly closer to the upper support wall than the free surface". Any Wolff support surface terminating at a free surface appears to be only the cleats 14, and they appear to be closer to what is identified in the Office Action as the upper support wall 10 than what is identified in the Office Action as the wringer surface 17. Therefore, it is not seen how Wolff anticipates claim 15.

Claim 16 is dependent from independent claim 15 and is asserted as being patentable for the same reasons as discussed above with respect to claim 15, for the additional combinations in claim 16 as well as for the additional limitations recited in the dependent in claim. Claim 16 recites in part "wherein the free edge of the second

portion is at a lower vertical position than the line joining the wringer surface with the first depending support wall." Claim 16 is patentable over the prior art.

Claim 18 is an independent apparatus claim reciting in part:

"a wringer having a support channel for engaging the rim surface of the bucket, wherein the support channel includes a support wall, the wringer further includes a first wringer surface supported by the support wall and a second wringer surface having perforations and supported by the first wringer surface wherein the second wringer surface is curved and terminates in a free edge below the rim surface of the bucket and extending in a direction toward the support channel."

None of the cited references taken singly or in combination teach or suggest the claimed combination, the recited elements quoted above, or a "free edge below the rim surface of the bucket and extending in a direction toward the support channel". Clearly claim 18 is patentable over the prior art.

Reconsideration of the application and claims in view of the foregoing amendments and remarks is respectfully requested. Early notice of allowance thereof is earnestly solicited. If there are any additional issues that may be discussed to place the application in a better condition for allowance, Applicants respectfully request a telephone issue to discuss those issues.

This response is being filed with an Information Disclosure Statement and Petition for A Three-Month Extension of Time.

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Please charge any additional fees that may be due or credit any overpayments to our deposit Account No. 50-0655. If a petition is required in conjunction with this paper, please consider this a request for such a petition.

Respectfully submitted,

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/James A. Henricks/
James A. Henricks
Registration No. 31,168

HENRICKS, SLAVIN & HOLMES LLP
840 Apollo Street, Suite 200
El Segundo, CA 90245-4737
310-563-1456
310-563-1460 (fax)
jhenricks@hsh-iplaw.com (Email)